

## CLAIMS

What is claimed is:

1           1.       A method for controlling a printing mode, the method comprising:  
2           receiving a request to change a printing mode of a printing device;  
3           generating a signed request that requests changing of the printing mode;  
4           validating the signed request; and  
5           enabling or disabling the printing mode in accordance with the signed request  
6   if the signed request is valid.

1           2.       The method of claim 1, wherein receiving a request to change a  
2   printing mode comprises receiving a request from a service provider who maintains  
3   the printing device.

1           3.       The method of claim 1, wherein generating a signed request comprises  
2   generating a signed request using a request generator that executes on a network-  
3   accessible server computer.

1           4.       The method of claim 1, wherein generating a signed request comprises  
2   generating a signed request that includes an identification code of the printing device.

1           5.       The method of claim 4, wherein generating a signed request comprises  
2   generating a signed request that further includes at least one of an expiration time, an  
3   identification of a client, and an identification of a service provider.

1           6.       The method of claim 1, wherein generating a signed request comprises  
2       generating a digital signature using a private key.

1           7.       The method of claim 6, wherein generating a digital signature  
2       comprises generating a digital signature using an identification code of the printing  
3       device.

1           8.       The method of claim 1, wherein validating the signed request  
2       comprises validating the signed request using a request validator that executes on the  
3       printing device.

1           9.       The method of claim 1, wherein validating the signed request  
2       comprises determining if a digital signature of the signed request is valid.

1           10.      The method of claim 9, wherein determining if a digital signature is  
2       valid comprises decrypting the digital signature using a public key.

1           11.      The method of claim 1, wherein enabling or disabling the printing  
2       mode comprises enabling or disabling reduced-toner printing.

1           12.      The method of claim 1, wherein enabling or disabling the printing  
2       mode comprises enabling or disabling CMYK printing.

1           13.     A system for controlling a printing mode, the system comprising:  
 2                 means for generating a signed request that requests changing of a printing  
 3     mode of a printing device;  
 4                 means for validating the signed request on the printing device; and  
 5                 means for enabling or disabling the printing mode.

1           14.     The system of claim 13, wherein the means for generating a signed  
 2     request comprise a request generator that executes on a network-accessible server  
 3     computer.

1           15.     The system of claim 13, wherein the means for generating a signed  
 2     request comprise means for generating a digital signature using an identification code  
 3     of the printing device.

1           16.     The system of claim 13, wherein the means for generating a digital  
 2     signature comprise a private key.

1           17.     The system of claim 13, wherein the means for validating the signed  
 2     request comprise a request validator that executes on the printing device.

1           18.     The system of claim 17, wherein the request validator is configured to  
 2     decrypt a digital signature of the signed request using a public key stored in the  
 3     printing device.

1           19.     The system of claim 13, wherein the means for enabling or disabling  
2     the printing mode comprise means for enabling or disabling reduced-toner printing.

1           20.     A system stored on a computer-readable medium, the system  
2     comprising:

3                 logic configured to generate a signed request on a server computer;  
4                 logic configured to validate the signed request on a printing device; and  
5                 logic configured to enable or disable a printing mode on the printing device in  
6     accordance with the signed request.

1           21.     The system of claim 20, wherein the logic configured to generate a  
2     signed request comprises logic configured to generate a digital signature using a  
3     private key and an identification code of the printing device.

1           22.     The system of claim 20, wherein the logic configured to validate the  
2     signed request comprises logic configured to determine if a digital signature of the  
3     signed request is valid using a public key.

1           23.     A request generator stored on a computer-readable medium, the  
2     generator comprising:

3                 logic configured to receive a request from a service provider to change a  
4     printing mode of a printing device;

5                 logic configured to verify the authorization of the service provider; and

6                 logic configured to generate a signed request that is configured for installation  
7     on the printing device and that requests changing of the printing mode.

1           24.     The generator of claim 23, wherein the logic configured to receive a  
2     request is further configured to receive an identification code of the printing device.

1           25.     The generator of claim 24, wherein the logic configured to generate is  
2     configured to generate a digital signature that is based upon the identification code.

1           26.     The generator of claim 25, wherein the logic configured to generate is  
2     configured to generate the digital signature using a private key.

1           27.     The generator of claim 23, further comprising logic configured to  
2     provide the signed request to the service provider.

1           28.     A request validator stored on a computer-readable medium, the  
2     validator comprising:

3                 logic configured to receive a signed request that requests changing of a  
4     printing mode;

5                 logic configured to determine an identification code comprised by the signed  
6     request;

7                 logic configured to determine if a digital signature of the signed request is  
8     valid; and

9                 logic configured to enable or disable the printing mode.

1           29.     The validator of claim 28, wherein the logic configured to determine if  
2     a digital signature of the signed request is valid comprises logic configured to decrypt  
3     the digital signature using a public key that is associated with a private key that was  
4     used to generate the digital signature.

1           30.     The validator of claim 28, wherein the logic configured to enable or  
2     disable the printing mode comprises logic configured to enable or disable reduced-  
3     toner printing.

1           31.     The validator of claim 27, wherein the logic configured to enable or  
2     disable the printing mode comprises logic configured to enable or disable CMYK  
3     printing.

1           32.     A printing device, comprising:  
2             a processing device;  
3             a print mechanism; and  
4             memory that includes a request validator, the request validator being  
5     configured to receive a signed request that requests changing of a printing mode,  
6     determine if a digital signature of the signed request is valid, and enable or disable the  
7     printing mode if the signed request is valid.

1           33.     The device of claim 32, wherein the request validator is configured to  
2     decrypt the digital signature using a public key that is associated with a private key  
3     that was used to generate the digital signature.

1           34.     The device of claim 32, wherein the request validator is configured to  
2     enable or disable reduced-toner printing.

1           35.     The device of claim 32, wherein the request validator is further  
2     configured to determine an identification code comprised by the signed request and  
3     compare it to an identification code of the printing device.